

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.-28. (Canceled)

29. 29. (Currently Amended) A method for the treatment of Syndrome X in a human subject in need thereof which comprises orally administering to ~~a~~ the human subject a therapeutically effective amount of a xenobiotic fatty acid compound of the formula R-COOH or a salt, ester or amide thereof, wherein R designates a saturated or unsaturated alkyl chain of 10-24 carbon atoms, one or more of which may be replaced by a heteroatom, wherein one or more of said carbon or heteroatom chain members optionally forms part of a ring, and wherein said chain is optionally substituted by a hydrocarbyl radical, heterocyclyl radical, or a lower alkoxy, hydroxyl-substituted lower alkyl, hydroxyl, carboxyl, halogen, phenyl, or (hydroxyl-, lower alkyl, lower alkoxy, lower alkenyl or lower alkynyl)-substituted phenyl C<sub>3</sub>-C<sub>7</sub> cycloalkyl or (hydroxyl-, lower alkyl, lower alkoxy, lower alkenyl or lower alkynyl)-substituted C<sub>3</sub>-C<sub>7</sub> cycloalkyl group wherein said compound is capable of being endogenously converted to its respective coenzyme A thioester, RCOSCoA, wherein Syndrome X comprises more than one of (1) dysliproteinemia, (2) obesity, (3) impaired glucose tolerance leading to noninsulin-dependent diabetes mellitus (NIDDM) (4) essential hypertension or (5) thrombogenic/fibrinolytic defects and wherein

the treatment is accompanied by an increase in plasma levels of HDL cholesterol, so as to thereby treat Syndrome X in the human subject.

30. (Previously presented) The method of claim 29, wherein R is selected from the group consisting of  $\omega$ -carboxyl and  $\omega$ -hydroxyl chains.
31. (Previously presented) The method of claim 29, wherein RCOOH is a saturated or non-saturated long chain fatty acid.
32. (Currently Amended) The method of claim 29, wherein RCOOH is selected from the group consisting of:
  - 1,16 Hexadecanedioic acid;
  - 1,18 Octadecanedioic acid;
  - 2,2,15,15-tetramethyl-hexadecane-1,16-dioic acid;
  - 2,2,17,17-tetramethyl-octadecane-1,18-dioic acid;
  - 3,3,14,14-tetramethyl-hexadecane-1,16-dioic acid;
  - 3,3,16,16-tetramethyl-octadecane-1,18-dioic acid;
  - 4,4,13,13-tetramethyl-hexadecane-1,16-dioic acid; and
  - 4,4,15,15-tetramethyl-octadecane-1,18-dioic acid.
33. (Previously presented) The method of claim 29, wherein RCOOH is 3,3,14,14-tetramethyl-hexadecane-1,16-dioic acid.
34. (Withdrawn) The method of claim 29, wherein RCOOH is 3,3,16,16-tetramethyl-octadecane-1,18-dioic acid.
35. (Withdrawn-currently amended) The method of claim 29, wherein RCOOH is selected from the group consisting of:
  - 16-hydroxy-hexadecanoic acid;

18-hydroxy-octadecanoic acid;  
16-hydroxy-2,2-dimethyl-hexadecanoic acid;  
18-hydroxy-2,2-dimethyl-octadecanoic acid;  
16-hydroxy-3,3-dimethyl-hexadecanoic acid;  
18-hydroxy-3,3-dimethyl-octadecanoic acid;  
16-hydroxy-4,4-dimethyl-hexadecanoic acid;and  
18-hydroxy-4,4-dimethyl-octadecanoic acid.

36. (Currently amended) A method for the treatment of dyslipoproteinemia in a human subject which comprises orally administering to ~~a~~ the human subject a therapeutically effective amount of a xenobiotic fatty acid compound of the formula R-COOH or a salt, ester or amide thereof, wherein R designates a saturated or unsaturated alkyl chain of 10-24 carbon atoms, one or more of which may be replaced by a heteroatom, wherein one or more of said carbon or heteroatom chain members optionally forms part of a ring, and wherein said chain is optionally substituted by a hydrocarbyl radical, heterocyclyl radical, or a lower alkoxy, hydroxyl-substituted lower alkyl, hydroxyl, carboxyl, halogen, phenyl, or (hydroxyl-, lower alkyl, lower alkoxy, lower alkenyl or lower alkynyl)-substituted phenyl C<sub>3</sub>-C<sub>7</sub> cycloalkyl or (hydroxyl-, lower alkyl, lower alkoxy, lower alkenyl or lower alkynyl)-substituted C<sub>3</sub>-C<sub>7</sub> cycloalkyl group wherein said compound is capable of being endogenously converted to its respective coenzyme A thioester, RCOSCoA, and wherein the treatment is accompanied by an increase in plasma levels of HDL cholesterol, so as to thereby treat dyslipoproteinemia in the human subject.

37. (Previously presented) The method of claim 36, wherein R is selected from the group consisting of  $\omega$ -carboxyl

and  $\omega$ -hydroxyl chains.

38. (Previously presented) The method of claim 36, wherein RCOOH is a saturated or non-saturated long chain fatty acid.
39. (Currently amended) The method of claim 36, wherein RCOOH is selected from the group consisting of:  
1,16 Hexadecanedioic acid;  
1,18 Octadecanedioic acid;  
2,2,15,15-tetramethyl-hexadecane-1,16-dioic acid;  
2,2,17,17-tetramethyl-octadecane-1,18-dioic acid;  
3,3,14,14-tetramethyl-hexadecane-1,16-dioic acid;  
3,3,16,16-tetramethyl-octadecane-1,18-dioic acid;  
4,4,13,13-tetramethyl-hexadecane-1,16-dioic acid;and  
4,4,15,15-tetramethyl-octadecane-1,18-dioic acid.
40. (Withdrawn) The method of claim 36, wherein RCOOH is 3,3,16,16-tetramethyl-octadecane-1,18-dioic acid.
41. (Withdrawn-currently amended) The method of claim 36, wherein RCOOH is selected from the group consisting of:  
16-hydroxy-hexadecanoic acid;  
18-hydroxy-octadecanoic acid;  
16-hydroxy-2,2-dimethyl-hexadecanoic acid;  
18-hydroxy-2,2-dimethyl-octadecanoic acid;  
16-hydroxy-3,3-dimethyl-hexadecanoic acid;  
18-hydroxy-3,3-dimethyl-octadecanoic acid;  
16-hydroxy-4,4-dimethyl-hexadecanoic acid;and  
18-hydroxy-4,4-dimethyl-octadecanoic acid.
42. (Currently amended) A method for lowering plasma levels of triglycerides in a human subject which

comprises orally administering to the human subject an effective triglyceride lowering amount of a xenobiotic fatty acid compound of the formula R-COOH or a salt, ester or amide thereof, wherein R designates a saturated or unsaturated alkyl chain of 10-24 carbon atoms, one or more of which may be replaced by a heteroatom, wherein one or more of said carbon or heteroatom chain members optionally forms part of a ring, and wherein said chain is optionally substituted by a hydrocarbyl radical, heterocyclyl radical, or a lower alkoxy, hydroxyl-substituted lower alkyl, hydroxyl, carboxyl, halogen, phenyl, or (hydroxyl-, lower alkyl, lower alkoxy, lower alkenyl or lower alkynyl)-substituted phenyl C<sub>3</sub>-C<sub>7</sub> cycloalkyl or (hydroxyl-, lower alkyl, lower alkoxy, lower alkenyl or lower alkynyl)-substituted C<sub>3</sub>-C<sub>7</sub> cycloalkyl group wherein said compound is capable of being endogenously converted to its respective coenzyme A thioester, RCOSCoA, and wherein the lowering of plasma levels of triglycerides is accompanied by an increase in plasma levels of HDL cholesterol, so as to thereby lower plasma levels of triglycerides in the human subject.

43. (Cancelled)
44. (Previously presented) The method of claim 42, wherein R is selected from the group consisting of  $\omega$ -carboxyl and  $\omega$ -hydroxyl chains.
45. (Previously presented) The method of claim 42, wherein RCOOH is a saturated or non-saturated long chain fatty acid.
46. (Currently amended) The method of claim 42, wherein

RCOOH is selected from the group consisting of:  
1,16 Hexadecanedioic acid;  
1,18 Octadecanedioic acid;  
2,2,15,15-tetramethyl-hexadecane-1,16-dioic acid;  
2,2,17,17-tetramethyl-octadecane-1,18-dioic acid;  
3,3,14,14-tetramethyl-hexadecane-1,16-dioic acid;  
3,3,16,16-tetramethyl-octadecane-1,18-dioic acid;  
4,4,13,13-tetramethyl-hexadecane-1,16-dioic acid;and  
4,4,15,15-tetramethyl-octadecane-1,18-dioic acid.

47. (Withdrawn) The method of claim 42, wherein RCOOH is 3,3,16,16-tetramethyl-octadecane-1,18-dioic acid.

48. (Withdrawn-currently amended) The method of claim 42, wherein RCOOH is selected from the group consisting of:

16-hydroxy-hexadecanoic acid;  
18-hydroxy-octadecanoic acid;  
16-hydroxy-2,2-dimethyl-hexadecanoic acid;  
18-hydroxy-2,2-dimethyl-octadecanoic acid;  
16-hydroxy-3,3-dimethyl-hexadecanoic acid;  
18-hydroxy-3,3-dimethyl-octadecanoic acid;  
16-hydroxy-4,4-dimethyl-hexadecanoic acid;and  
18-hydroxy-4,4-dimethyl-octadecanoic acid.

49. (Currently amended) A method for increasing plasma levels of HDL cholesterol in a human subject which comprises orally administering to ~~a~~ the human subject an effective HDL cholesterol increasing amount of a xenobiotic fatty acid compound of the formula R-COOH or a salt, ester or amide thereof, wherein R designates a saturated or unsaturated alkyl chain of 10-24 carbon atoms, one or more of which may be replaced by a heteroatom, wherein one or more of said

carbon or heteroatom chain members optionally forms part of a ring, and wherein said chain is optionally substituted by a hydrocarbonyl radical, heterocyclyl radical, or a lower alkoxy, hydroxyl-substituted lower alkyl, hydroxyl, carboxyl, halogen, phenyl, or (hydroxyl-, lower alkyl, lower alkoxy, lower alkenyl or lower alkynyl)-substituted phenyl C<sub>3</sub>-C<sub>7</sub> cycloalkyl or (hydroxyl-, lower alkyl, lower alkoxy, lower alkenyl or lower alkynyl)-substituted C<sub>3</sub>-C<sub>7</sub> cycloalkyl group, and wherein said compound is capable of being endogenously converted to its respective coenzyme A thioester, RCOSCoA, so as to thereby increase plasma levels of HDL cholesterol in the human subject.

50. (Previously presented) The method of claim 49, wherein R is selected from the group consisting of  $\omega$ -carboxyl and  $\omega$ -hydroxyl chains.
51. (Previously presented) The method of claim 49, wherein RCOOH is a saturated or non-saturated long chain fatty acid.
52. (Currently amended) The method of claim 49, wherein RCOOH is selected from the group consisting of:  
1,16 Hexadecanedioic acid;  
1,18 Octadecanedioic acid;  
2,2,15,15-tetramethyl-hexadecane-1,16-dioic acid;  
2,2,17,17-tetramethyl-octadecane-1,18-dioic acid;  
3,3,14,14-tetramethyl-hexadecane-1,16-dioic acid;  
3,3,16,16-tetramethyl-octadecane-1,18-dioic acid;and  
4,4,13,13-tetramethyl-hexadecane-1,16-dioic acid  
4,4,15,15-tetramethyl-octadecane-1,18-dioic acid.

53. (Withdrawn) The method of claim 49, wherein RCOOH is 3,3,16,16-tetramethyl-octadecane-1,18-dioic acid.
54. (Withdrawn-currently amended) The method of claim 49, wherein RCOOH is selected from the group consisting of:
- 16-hydroxy-hexadecanoic acid;
  - 18-hydroxy-octadecanoic acid;
  - 16-hydroxy-2,2-dimethyl-hexadecanoic acid;
  - 18-hydroxy-2,2-dimethyl-octadecanoic acid;
  - 16-hydroxy-3,3-dimethyl-hexadecanoic acid;
  - 18-hydroxy-3,3-dimethyl-octadecanoic acid;
  - 16-hydroxy-4,4-dimethyl-hexadecanoic acid;and
  - 18-hydroxy-4,4-dimethyl-octadecanoic acid.